3M Center ⁷ St. Paul, Minnesota 55144-1000 612/733 1110

Duns No.: 00-617-3082

MATERIAL SAFETY DATA SHEET

DIVISION: ADHESIVES, COATINGS AND SEALERS

TRADE NAME:

Scotch-Seal (TM) EC-1252 Orange Tamper Proof Sealant [AEROSPACE

MATERIALS DEPARTMENT]

3M I.D. NUMBER: 62-1921-2640-7

ISSUED: SEPTEMBER 25, 1989 SUPERSEDES: SEPTEMBER 1, 1989

DOCUMENT: 10-8614-9

| 1. INGREDIENT | C.A.S. NO. | PERCENT | VALUE UNIT | LIMITS TYPE AUTH |
|---|---|---|--|-------------------|
| hydrated aluminum silicate methyl ethyl ketone limestone titanium dioxide molybdate orange acrylonitrile-butadiene polymer antimony trioxide phenol-formaldehyde polymer phenol-formaldehyde polymer Vendor Trade Secret (V.T.S.) chloroalkanes | 13132-95-1 78-93-3 1317-65-3 13463-67-7 12656-85-8 9003-18-3 1309-64-4 9003-35-4 V.T.S. | 20.0 - 30.0 20.0 - 30.0 20.0 - 30.0 1.0 - 10.0 1.0 - 10.0 1.0 - 10.0 1.0 - 10.0 1.0 - 10.0 1.0 - 10.0 | NONE NONE 200 ppm 10 mg/m3 10 mg/m3 0.05 mg/m3 Pb NONE NONE 0.5 mg/m3 Sb NONE NONE NONE NONE NONE NONE | NONE NONE |

SOURCE OF EXPOSURE LIMIT DATA:

- ACGIH: American Conference of Governmental Industrial Hygienists OSHA: Occupational Safety and Health Administration
- NONE: None Established

2. PHYSICAL DATA

| BOILING POINT: | 176.00 F |
|-------------------------------|--------------------------------------|
| VAPOR PRESSURE: | 80.0000 mmHg |
| VAPOR DENSITY: | 2.50 Air = 1 |
| EVAPORATION RATE: | 2.70 Ether = 1 Slight |
| SP. GRAVITY:PERCENT_VOLATILE: | 1.500 Water = 1 24.00 % |
| VOLATILE ORGANICS: | 368.00 gm/l N/A |
| VISCOSITY: | 200.0-1000.0 CPS paste, solvent odor |

3. FIRE AND EXPLOSION HAZARD DATA

FLAMMABLE LIMITS - LEL:
FLAMMABLE LIMITS - UEL: 20.00 F 1.80 % 11.50 % AUTOIGNITION TEMPERATURE: ... N/D EXTINGUISHING MEDIA:

CO2, foam, dry chemical, water SPECIAL FIRE FIGHTING PROCEDURES:

Fire fighters should be equipped with self-contained breathing apparatus when fighting fires involving this material. UNUSUAL FIRE AND EXPLOSION HAZARDS:

Extremely flammable. Overheated, closed containers adjacent to fire

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3. FIRE AND EXPLOSION HAZARD DATA (continued)

could explode due to pressure buildup.
NFPA-HAZARD-CODES: HEALTH 2 FIRE 3 REACTIVITY 0 UNUSUAL REACTION HAZARD: None

4. REACTIVITY DATA

STABILITY: Stable

INCOMPATIBILITY - MATERIALS TO AVOID:

HAZARDOUS POLYMERIZATION: Will Not Occur
HAZARDOUS DECOMPOSITION PRODUCTS:
C0, C02, Sb204, Sb205 and smoke particles when subjected to excessive heat or flame.

5. ENVIRONMENTAL INFORMATION

SPILL RESPONSE:

Extinguish all ignition sources. Ventilate area. Observe precautions from other sections. Collect spilled material. Place in a U.S. Dept. of Transportation-approved metal container, and seal.

RECOMMENDED DISPOSAL:

Incinerate bulk product after mixing with flammable material in a licensed hazardous waste facility. Disposal should be in accordance with applicable regulations U.S. EPA HAZARDOUS WASTE NUMBER: DOOL (IGNITABLE).

ENVIRONMENTAL DATA:

Volatile Organic Compound (VOC): Maximum VOC = 368 grams/liter. Maximum VOC minus Water minus Exempt Solvents = 368 grams/liter.

SARA HAZARD CLASS:

FIRE HAZARD: Yes PRESSURE: No REACTIVITY: No ACUTE: Yes CHRONIC: Yes

6. SUGGESTED FIRST AID

EYE CONTACT:

Flush eyes with plenty of water for at least 10 minutes. Call a physician.

SKIN CONTACT:

Wash affected area with soap and water.

INHALATION:

Remove person to fresh air. Call a physician.

IF SWALLOWED:

DO NOT induce vomiting. Call a physician or poison control center.

OTHER FIRST AID:

NONE

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7. PRECAUTIONARY INFORMATION

FOR INDUSTRIAL OR PROFESSIONAL USE ONLY. Keep product and its vapors away from heat, sparks, flame and other sources of ignition. The vapors released by this product can easily be ignited. Avoid breathing vapors. Use only in areas with ventilation sufficient to maintain concentrations below recommended exposure limits. Prevent eye and skin contact. Use eye (e.g. safety glasses, chemical goggles) and skin (e.g. impervious gloves) protection to prevent contact. Keep container closed when not in use. Keep out of the reach of children.

ADDITIONAL EXPOSURE LIMITS

| j | - EXPOSURE | LIMITS | |
|------------------------|------------|--------|-------|
| INGREDIENTS VALUE | JE UNIT | TYPE | AUTH |
| methyl ethyl ketone 59 | 0 mg/m3 | TWA | ACGIH |
| methyl ethyl ketone 30 | 00 ppm | STEL | ACGIH |
| methyl ethyl ketone 88 | 5 mg/m3 | STEL | ACGIH |
| methyl ethyl ketone 20 | 0 ppm | TWA | OSHA |
| methyl ethyl ketone 59 | 0 mg/m3 | AWT | OSHA |
| | 0 ppm | STEL | OSHA |
| methyl ethyl ketone 88 | 5 mg/m3 | STEL | OSHA |
| limestone | .5 mg/m | AWT | OSHA |
| titanium dioxide | .0 mg/m3 | TWA | OSHA |
| molybdate orange 0.1 | .5 mg/m3 | Pb TWA | ACGIH |
| antimony trioxide 0 | 5 mg/m3 | Sb TWA | OSHA |

SOURCE OF EXPOSURE LIMIT DATA:

- ACGIH: American Conference of Governmental Industrial Hygienists

- OSHA: Occupational Safety and Health Administration

8. HEALTH HAZARD DATA

EYE CONTACT: Liquid and vapor may cause eye irritation.

SKIN CONTACT: May cause skin irritation on prolonged or repeated contact.

INHALATION: Vapor overexposure may cause respiratory system irritation and temporary nervous system impairment (light-headedness). Symptoms of overexposure include headache, dizziness, weakness, fatigue, and on extreme overexposure, unconsciousness.

INGESTION: May cause digestive system irritation and light-headedness. Symptoms of ingestion may include nausea and vomiting. Solvent aspiration into the lungs may cause lung damage, which can be fatal.

NOTE: Antimony trioxide has been found to cause cancer in laboratory animal studies. Antimony trioxide is bound in this product so exposure by inhalation is not expected.

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SECTION CHANGE DATES

HEADING

SECTION CHANGED SINCE SEPTEMBER 1, 1989 ISSUE

Abbreviations: N/D - Not Determined N/A - Not Applicable

The information on this Data Sheet represents our current data and best opinion as to the proper use in handling of this material under normal conditions. Any use of the material which is not in conformance with this Data Sheet or which involves using the material in combination with any other material or any other process is the responsibility of the user.